### Jabsco Pumps 30560-0016

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30560-1XXX

## SELF-PRIMING PUMPS

#### FEATURES

Pump Type:	Pedestal Pump	
Body:	316 Stainless Steel	
Impeller:	Neoprene or EPDM	
Shaft Seal:	Mechanical; Carbon-on-Ceramic or Tungsten Carbide; Nitrile	
Ports:	1" ACME Threads with Bevel Sea or Clamp Type	
Shaft:	316 Stainless Steel	
Weight:	8.5 lb (3.9 kg) Approx.	

#### **APPLICATIONS**

**DAIRY:** Transfer and processing of raw milk, cream, milk whey, buttermilk, condensed milk.

**FOODS:** Processing of eggs, sugar liquors, brines, catsup, chocolate, glaze, gelatin, honey, jams, jellies, mayonnaise, molasses, mustard, pickle relish, vinegar, water, yeast slurries, syrups, liquids containing solids in suspension such as chopped tomatoes, nuts, peanut butter.

**BEVERAGE:** Circulating and transferring alcohols, beers, brewery slop, cider, distillery wort, extracts, flavors, juice, mash, soft drink syrups, wines.

**PHARMACEUTICAL:** Moving medicines, cosmetics, process chemicals, lotions, preparations, filtering solutions, used as a filling line supply pump.

**N.B.** 3A option to include Elastomers : EPDM and Neoprene. Ports : Tri-Clamp, IDF, 3A and DIN11851.



### VARIATIONS AVAILABLE

Model	Description
30560-0005	Standard Pressure, Neoprene Impeller, Carbon Seal, ACME Ports
30560-0015	High Pressure, Neoprene Impeller, Carbon Seal, ACME Ports
30560-0105	Standard Pressure, Neoprene Impeller, Tungsten Carbide Seal, ACME Ports
30560-0115	High Pressure, Neoprene Impeller, Tungsten Carbide Seal, ACME Ports
30560-1005	Standard Pressure, Neoprene Impeller, Carbon Seal, Clamp Ports
30560-1015	High Pressure, Neoprene Impeller, Carbon Seal, Clamp Ports
30560-1105	Standard Pressure, Neoprene Impeller, Tungsten Carbide Seal, Clamp Ports
30560-1115	High Pressure, Neoprene Impeller, Tungsten Carbide Seal, Clamp Ports



Explosion hazard. Do not pump gasoline, solvents, thinners or other flammable liquids. To do so can cause an explosion resulting in injury or death.



Injury hazard. Exposed pulleys and belts can cause injury. Install shield around pulleys and belts. Stay clear while machinery is operating.

#### **OPERATING INSTRUCTIONS**

- INSTALLATION Pump may be mounted in any position. The rotation of the pump shaft determines the location of the pump's intake and discharge ports. (Refer to dimensional drawing.) Pump is normally assembled at factory for clockwise rotation looking at end cover. If counterclockwise rotation is desired, follow steps 1 and 2 of disassembly and step 9 of assembly instructions to change direction of impeller blade deflection under cam.
- DRIVE Belt or direct with flexible coupling.
  Belt Drive: Overtight belt load will reduce pump bearing life.

Direct Drive: Clearance should be left jactween Pumps 30560-0016 WITH CARE. DO NOT DROP OR drive shaft and pump shaft when installing coupling, MISHANDLE, www.PumpAgents.com - Click here for Pricing/Ordering for Pumps and Parts Always mount and align pump and drive shaft before

tightening the coupling set screw.

If pulley or coupling must be pressed on shaft, remove end cover and impeller to support shaft from impeller end during press operation. Do not hammer pulley or coupling on shaft; this may damage bearing or seal.

Three phase capacitor start motor is required to overcome starting torque of impeller.

- 3. SPEEDS 100 RPM to the maximum shown in the performance curves. For longer pump life, operate at lowest possible speeds. Lower speeds are required for viscous liquids. Consult the factory for proper speeds and horsepower requirements.
- 4. SELF-PRIMING Primes at low or high speeds. For vertical dry suction lift of 10 feet (neoprene) - 7 feet (EPDM), a minimum of 860 RPM is required. Pump will produce suction lift up to 22 feet when wet.

BE SURE SUCTION LINES ARE AIRTIGHT OR PUMP WILL NOT SELF-PRIME.

- 5. DISCHARGE When transferring liquids further than 25 feet, use one size larger discharge line than discharge port size.
- 6. RUNNING DRY Unit depends on liquid pumped for lubrication. DO NOT RUN DRY for more than 30 seconds. Lack of liquid will damage the impeller.
- 7. PUMPAGE COMPATIBILITY Consult the Chemical Resistance Guide in the JABSCO Industrial Pump Catalog (available upon request from the factory) for proper body materials and impeller compounds. If corrosive fluids are handled, pump life will be prolonged if pump is flushed with a neutralizing solution after each use or after each work day. A Tungsten Carbide Seal variation is available for pumping liquids that contain abrasives or are highly corrosive.
- 8. PRESSURES Consult Performance Curves for maximum recommended pressures for pump in continuous operation. If pressures exceed those shown, consult the factory.
- 9. **TEMPERATURES** The operating temperature limits of the pump depend on the impeller compound. The following ranges apply: Neoprene -  $45^{\circ}$  to  $150^{\circ}$  F (7° to  $65^{\circ}$  C) EPDM - 45° to 185° F (7° to 85° C).
- 10. CLEANING Before using pump, it should be disassembled and cleaned to remove any dust and dirt resulting from storage or shipping. Wash parts in standard cleaning solutions approved for handling stainless steel. Thoroughly rinse before reassembly.

DO NOT USE IODINE BASED SANITIZERS as the iodine attacks the elastomer materials used in the impeller.

All parts have been expertly machined and polished.

- N.B Do not clean with Phosporic Acid
- **11. IMPELLER TORQUE** The torque required to initiate rotation of a new impeller in a dry pump body is:

Standard Pressure Impeller (14346-Series): Forward = 1.5 pounds force - feet Reverse = 4.3 pounds force - feet High Pressure Impeller (8983-Series): Forward = 3.0 pounds force - feet Reverse = 6.0 pounds force - feet

These values may vary slightly due to impeller compounding, blade set, and body material of construction. Consult factory for more information.

12. SPARE PARTS - To avoid costly shutdowns, keep a spare JABSCO impeller, seal and O-ring set on hand.

#### SERVICE INSTRUCTIONS

#### DISASSEMBLY

- Remove the four end cover screws. Remove end 1. cover and O-ring.
- 2. Remove the four screws, holding the body to the bearing housing flange. Slide body, complete with impeller and wearplate, from pedestal and shaft assembly.
- 3. Remove mechanical seal by inserting two screwdrivers behind seal collar, and gently lever collar and seal assembly forward on shaft. Use extreme care not to mar shaft surface. Remove seal seat and rubber cup from recess in wearplate.
- 4. From the drive end of the bearing housing, pry out bearing seal by inserting a screwdriver blade between OD of the seal and housing. Remove retaining ring. Very carefully withdraw shaft and bearing assembly.
- 5. Remove inner bearing seal and retaining ring.
- 6. To remove bearings from shaft, an arbor press is required. If an arbor press is not available then a bearing extractor may be used. Supporting inner race of bearing, apply a steady pressure on shaft until bearing slides free. Repeat this procedure to remove second bearing.

#### ASSEMBLY

- 1. To replace bearing on shaft. Support ball bearing on its inner race and locate shaft onto bearing. Apply a steady pressure to the shaft until bearing locates against shoulder on shaft. Repeat for second bearing.
- 2. Fit retaining ring and bearing seal into impeller end of bearing housing. Spring on bearing seal to face outwards.
- 3. Apply bearing grease around and between bearings, filling cavity between bearings two thirds full. Smear grease on shaft where bearing seal locates. Push shaft and bearing assembly into bearing housing.

4.	Replace retaining ring and outer bearing apscorpump	os <mark>⊵30</mark>	560-0016		
5.	spring facing outwards. www.PumpAgents.com - Click here face and the search of the se	for P	ricing/Ordering for Pumps	and F Qty.	Parts Part Number
	shaft up to locating shoulder, then smear shaft with light lubricating oil. Push on seal gently until it engages with spacer. Fit rubber cup and seal seat	1 2	Bearing Housing Body:	1 1	18753-0184
	into wearplate.		2-A. Clamp Ports 2-B. ACME Ports		18753-0359 18753-0360
6.	Insert impeller in pump body, fit O-ring in each end of the pump body. Fit wearplate to body.	3 4	End Cover Wearplate	1 1	18753-0361 18753-0200
7.	Slide wearplate and body assembly over shaft, position wearplate in housing. Fit body to pedestal	5 6	Shaft Impeller: Standard Pressure - Neopre	1 1 ne	18753-0205 8981-0005
	with screws. Torque screws to 10 in. – lbs. NOTE: A gap should be maintained between bearing		Standard Pressure - EPDM High Pressure - Neoprene	110	8981-0002 8840-0005
	housing and body. DO NOT overtighten screws.		High Pressure - EPDM		8840-0002
8.	Fit end cover and end cover screws. Torque screws to 60 in. – lbs.	7	High Pressure - Nitrile Spacer	1	8840-0006 18753-0225
9.	Changing Pump Rotation (looking at end cover):	8 9	Seal Seat: Ceramic - Nitrile Seal Mech.:	1	18753-0235
	Clockwise Rotation: Insert impeller into pump body with blades		Ceramic - Nitrile Tungsten Carbide - Nitrile		18753-0245 18753-0247
	bending counterclockwise	10	Bearing Seal	2	18753-0258

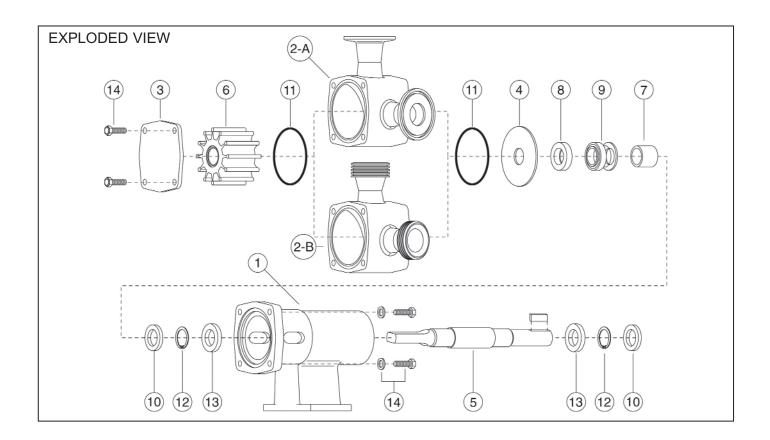
Counterclockwise Rotation:

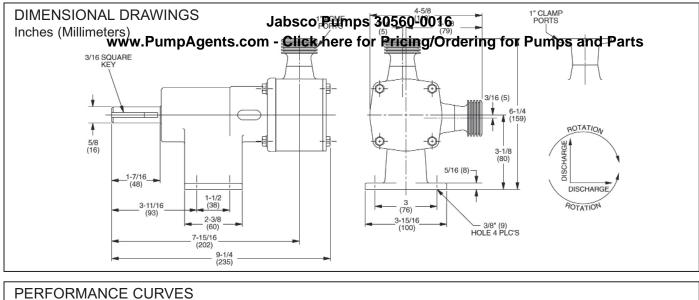
Insert impeller into pump body with blades bending clockwise.

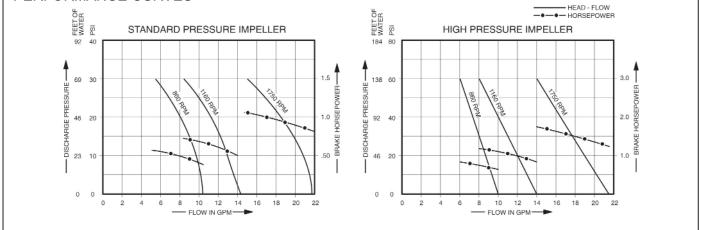
O-Ring: Nitrile 11 2 18753-0263 12 Retaining Ring 2 18753-0270 Bearing 2 18753-0274 13 14 Screw Kit: 1 18753-0281 Consists of Screw, Hex Hd. M8x20mm (4) Screw, Pan Hd. M8x14mm (4)

Washer, Flat M8

(4)







NOTE: Curves show approximate head flow for new pumps with neoprene impeller pumping water. Capacities should be reduced approximately 20% with high pressure EPDM impeller.

PUMP SPEED SELECTION ACCORDING TO PRODUCT VISCOSITY
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Viscosity S.S.U.	Pump Speed (Max. RPM)						
50	1750	700	1680	4,000	1400	15,000*	787
100	1750	800	1645	5,000	1312	20,000*	700
200	1750	900	1610	6,000	1225	30,000*	612
300	1750	1,000	1575	7,000	1138	40,000*	525
400	1750	1,500	1540	8,000	1050	50,000*	437
500	1750	2,000	1505	9,000	962	75,000*	298
600	1715	3,000	1450	10,000	875	100,000*	175

Consult factory for specific performance information. \*Use High Pressure Impeller.

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# **Hygienic Flexible Impeller Pumps**

Stainless Steel Pedestal Pumps

## APPLICATIONS

JABSCO

Hygienic flexible impeller pumps are especially useful where self-priming is required and are also very effective in pumping viscous or air-entrained food, cosmetic and pharmaceutical products. At lower speeds, they also handle delicate liquids very well owing to their gentle pumping action. Virtually any liquid with viscousity up to 20,000 cps can be pumped as long as there is chemical compatibility with the pump materials.

## TECHNICAL DATA

ILCINICAL DAI	A	
PUMP MODEL NUMBER	30550-0005	30560-0005
FLOW (1750 RPM, 10 Ft. Head)	10 GPM	20 GPM
PORT SIZE	1"	1"
PORT TYPE	ACME Threaded	ACME Threaded
IMPELLER	Neoprene	Neoprene
SEAL SHAFT	Mechanical - C/C	Mechanical - C/C
BODY AND SHAFT MATERIAL	316 Stainless Steel	316 Stainless Steel
SIZE (Heigth x Width x Length)	5 <sup>3</sup> /4" x 4 <sup>1</sup> /4" x 7 <sup>1</sup> /2"	6 <sup>1</sup> /4" x 4 <sup>3</sup> /4" x 9 <sup>1</sup> /4"
WEIGTH (Approx.)	5.5 lbs.	8.5 lbs.
	Variations Available	Variations Available
	30550-0015 HP Neoprene Impeller,	30560-0015 HP Neoprene Impeller,
	C/C Seal, ACME Ports	C/C Seal, ACME Ports
	30550-0105 SP Neoprene Impeller,	30560-0105 SP Neoprene Impeller,
	TC/C Seal, ACME Ports	TC/C Seal, ACME Ports
	30550-0115 HP Neoprene Impeller,	30560-0115 HP Neoprene Impeller,
	TC/C Seal, ACME Ports	TC/C Seal, ACME Ports
	30550-1005 SP Neoprene Impeller,	30560-1005 SP Neoprene Impeller,
	C/C Seal, Clamp Ports	C/C Seal, Clamp Ports
	30550-1015 HP Neoprene Impeller,	30560-1015 HP Neoprene Impeller,
	C/C Seal, Clamp Ports	C/C Seal, Clamp Ports
	30550-1105 SP Neoprene Impeller,	30560-1105 SP Neoprene Impeller,

TC/C Seal, Clamp Ports

TC/C Seal, Clamp Ports TC/C Seal, Clamp Ports 30550-1115 HP Neoprene Impeller,

30560-1115 HP Neoprene Impeller, TC/C Seal, Clamp Ports

10 12 14 16 18 20 22

----HORSEPOWER

- HEAD - FLOW

FLOW IN GPM ---

10 12 14 16

FLOW IN GPM -

HIGH PRESSURE IMPELLER

1.5

1.0

.50

3.0

2.0

10

18 20 22

BRAKE H.P.

BRAKE H.P.

## **FEATURES**

Hygienic flexible impeller pumps have the design features and materials suitable for pumping food products, cosmetics and pharmaceuticals.

#### Examples include:

- Gentle, low-shear action for delicate products.
- Type 316 stainless steel body, cover and shaft.
- All materials per FDA standards.
- 3A and USDA listed.
- Sanitary design external shaft mechanical seal.
- Either sanitary clamp or ACME bevel seat ports.
- Body may be rotated 360° to facilitate piping.
- Sanitary neoprene impellers in Standard Pressure (SP) and High Pressure (HP) are standard.
- Stanitary EPDM impellers in SP and HP for elevated temperature applications are available as options.



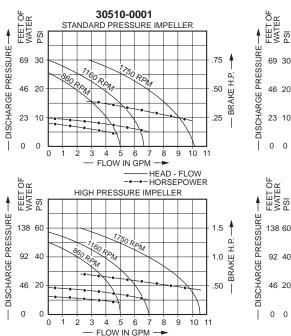
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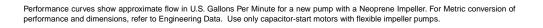
Head vs. Flow Chart

#### 30550-0005





STANDARD PRESSURE IMPELLER



0

0

0 2 4 6 8

0 Ż 4 6 8

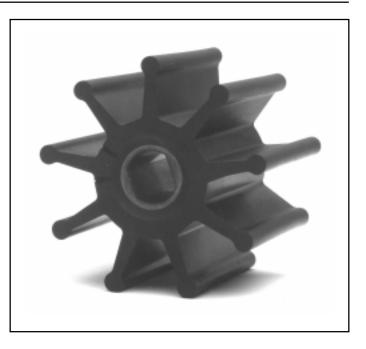
# **Flexible Impeller Pump Accessories**

# **EPDM** Impellers

JABSCO

# This new impeller compound allows the extension of flexible impeller pump applications to 185° F.

Designed with a double flat drive to fit the industrial stainless steel, epoxy and hygienic pumps. Available in four sizes and in standard (SP) and high pressure (HP) ratings. Refer to the Flexible Impeller Reference Guide for more information.



# **Impeller Pullers**

# These tools provide an easy way of removing flexible impellers from a pump's impeller bore.

Simply tighten the tool's grip fingers into the rubber hub of the impeller and turn the extraction screw clockwise to pull the impeller out of the pump.

The small puller is suitable for impellers with overall diameters from 2-1/4" to 2-9/16" (silhouettes K, L, M, W, X and Y). The large puller is suitable for impellers with overall diameters from 3-1/16" to 5" (silhouettes O, Q, R, U and Z).

Small Puller - **50070-0040** Large Puller - **50070-0200** 

